



## **NUCLEAR REGULATORY COMMISSION**

**10 CFR Part 72**

**[NRC-2023-0050]**

**RIN 3150- AK93**

**List of Approved Spent Fuel Storage Casks: TN Americas LLC**

**NUHOMS® EOS Dry Spent Fuel Storage System**

**Certificate of Compliance No. 1042, Amendment No. 3**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is proposing to amend its spent fuel storage regulations by revising the TN Americas LLC, NUHOMS® EOS Dry Spent Fuel Storage System listing within the “List of approved spent fuel storage casks” to include Amendment No. 3 to Certificate of Compliance No. 1042. Amendment No. 3 revises the certificate of compliance to add three new heat load zone configurations, add a variable-lead thickness transfer cask, add ATRIUM 11 fuel as an allowable content, update the criticality evaluation, allow ultrasonic testing of the outer top cover plate weld, reduce the time limit for transfer of two heat load zone configurations, incorporate a method to determine new loading patterns, waive a fabrication pressure test requirement, and make conforming changes for consistency and terminology clarification. Amendment No. 3 also includes additional changes associated with consideration of severe weather, maintaining water in the annulus, and design changes to the Matrix Loading Crane.

**DATES:** Submit comments by **[INSERT DATE 30 DAYS AFTER DATE OF**

**PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only

for comments received on or before this date.

**ADDRESSES:** Submit your comments, identified by Docket ID NRC-2023-0050, at <https://www.regulations.gov>. If your material cannot be submitted using <https://www.regulations.gov>, call or email the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document for alternate instructions.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

**FOR FURTHER INFORMATION CONTACT:** Christian Jacobs, telephone: 301-415-6825, e-mail: [Christian.Jacobs@nrc.gov](mailto:Christian.Jacobs@nrc.gov) and Caylee Kenny, telephone: 301-415-7150, e-mail: [Caylee.Kenny@nrc.gov](mailto:Caylee.Kenny@nrc.gov). Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

**SUPPLEMENTARY INFORMATION:**

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**I. Obtaining Information and Submitting Comments**

**A. Obtaining Information**

Please refer to Docket ID NRC-2023-0050 when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2023-0050. Address questions about NRC dockets to Dawn Forder, telephone: 301-415-3407, email: [Dawn.Forder@nrc.gov](mailto:Dawn.Forder@nrc.gov). For technical questions contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC’s Agencywide Documents Access and Management System**

**(ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the “Availability of Documents” section.

- **NRC’s PDR:** You may examine and purchase copies of public documents, by appointment, at the NRC’s PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays.

#### B. Submitting Comments

Please include Docket ID NRC-2023-0050 in your comment submission. The NRC requests that you submit comments through the Federal rulemaking website at <https://www.regulations.gov>. If your material cannot be submitted using <https://www.regulations.gov>, call or email the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document for alternate instructions.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <https://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment

submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

## II. Rulemaking Procedure

Because the NRC considers this action to be non-controversial, the NRC is publishing this proposed rule concurrently with a direct final rule in the Rules and Regulations section of this issue of the *Federal Register*. The direct final rule will become effective on **[INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. However, if the NRC receives any significant adverse comment by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, then the NRC will publish a document that withdraws the direct final rule. If the direct final rule is withdrawn, the NRC will address the comments in a subsequent final rule. In general, absent significant modifications to the proposed revisions requiring republication, the NRC will not initiate a second comment period on this action in the event the direct final rule is withdrawn.

A significant adverse comment is a comment where the commenter explains why the rule would be inappropriate, including challenges to the rule's underlying premise or approach, or would be ineffective or unacceptable without a change. A comment is adverse and significant if:

1) The comment opposes the rule and provides a reason sufficient to require a substantive response in a notice-and-comment process. For example, a substantive response is required when:

a) The comment causes the NRC to reevaluate (or reconsider) its position or conduct additional analysis;

b) The comment raises an issue serious enough to warrant a substantive response to clarify or complete the record; or

c) The comment raises a relevant issue that was not previously addressed or considered by the NRC.

2) The comment proposes a change or an addition to the rule, and it is apparent

that the rule would be ineffective or unacceptable without incorporation of the change or addition.

3) The comment causes the NRC to make a change (other than editorial) to the rule.

For a more detailed discussion of the proposed rule changes and associated analyses, see the direct final rule published in the Rules and Regulations section of this issue of the *Federal Register*.

### **III. Background**

Section 218(a) of the Nuclear Waste Policy Act of 1982, as amended, states that “[t]he Secretary [of the Department of Energy] shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear power reactor sites, with the objective of establishing one or more technologies that the [Nuclear Regulatory] Commission may, by rule, approve for use at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission.” Section 133 of the Nuclear Waste Policy Act states, in part, that “[t]he Commission shall, by rule, establish procedures for the licensing of any technology approved by the Commission under Section 219(a) [sic: 218(a)] for use at the site of any civilian nuclear power reactor.”

To implement this mandate, the Commission approved dry storage of spent nuclear fuel in NRC-approved casks under a general license by publishing a final rule that added a new subpart K in part 72 of title 10 of the *Code of Federal Regulations* (10 CFR) entitled “General License for Storage of Spent Fuel at Power Reactor Sites” (55 FR 29181; July 18, 1990). This rule also established a new subpart L in 10 CFR part 72 entitled “Approval of Spent Fuel Storage Casks,” which contains procedures and criteria for obtaining NRC approval of spent fuel storage cask designs. The NRC subsequently issued a final rule on March 24, 2017 (82 FR 14987), that approved the TN Americas LLC, NUHOMS® EOS Dry Spent Fuel Storage System design and added it to the list of NRC-approved cask designs in § 72.214 as Certificate of Compliance No.

#### IV. Plain Writing

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, "Plain Language in Government Writing," published June 10, 1998 (63 FR 31885). The NRC requests comment on the proposed rule with respect to clarity and effectiveness of the language used.

#### V. Availability of Documents

The documents identified in the following table are available to interested persons as indicated.

DOCUMENT	ADAMS ACCESSION NO. / WEB LINK / <i>FEDERAL REGISTER</i> CITATION
Proposed Certificate of Compliance and Proposed Technical Specifications	
Proposed Certificate of Compliance No.1042 (Amendment No. 3)	ML23027A214
Proposed Certificate of Compliance No. 1042 Appendix A: NUHOMS® EOS System Generic Technical Specifications Amendment 3	ML23027A216
Preliminary Safety Evaluation Report for the NUHOMS® EOS System: Certificate of Compliance No. 1042 Amendment No. 3	ML23027A217
TN Americas, LLC, NUHOMS EOS Amendment 3 Application Documents	
TN Americas LLC Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 0 (March 31, 2021)	ML21102A281 (package)
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 1 – Response to Request for Supplemental Information (June 23, 2021)	ML21174A231
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 2 – Revised Response to OBS 4-6 (August 4, 2021)	ML21209A098

TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 3 – Revised Response to OBS 4-5 and Revised UFSAR Pages (September 3, 2021)	ML21246A136
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 3a– Amendment Scope Change (October 22, 2021)	ML21295A260
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 4 – Response to Request for Additional Information (November 30, 2021)	ML21334A206
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 5 – Response to Request for Additional Information (New Scope) and Revised Responses to Request for Additional Information (February 25, 2022)	ML22056A458
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 6 – Revised Responses to Request for Additional Information (June 7, 2022)	ML22158A293
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 7 – Clarification Regarding Annulus Temperatures During Vacuum Drying Operations (June 29, 2022)	ML22180A266
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 8 – ASME NOG-1 Compliance and the Matrix Loading Crane (September 30, 2022)	ML22273A031
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 9 – Clarifications Regarding Annulus Water, MX-LC Alignment, and Seismic Damping Values (October 31, 2022)	ML22304A217
TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 10 – Additional Information regarding ASME NOG-1 Compliance and the Matrix Loading Crane (November 14, 2022)	ML22318A205

TN Americas LLC, Application for Amendment 3 to NUHOMS EOS Certificate of Compliance No. 1042, Revision 11 – Response to Request for Additional Information (New Scope Addition #3 – ASME NOG-1 Exceptions) and Clarifications Regarding Annulus Water (December 21, 2022)	ML22355A219
Other Documents	
Storage of Spent Fuel In NRC-Approved Storage Casks at Power Reactor Sites: Final Rule, dated July 18, 1990	55 FR 29181
List of Approved Spent Fuel Storage Casks: TN Americas LLC, NUHOMS® EOS Dry Spent Fuel Storage System, Certificate of Compliance No. 1042: Direct Final Rule, dated March 24, 2017	82 FR 14987

The NRC may post materials related to this document, including public comments, on the Federal rulemaking website at <https://www.regulations.gov> under Docket ID NRC-2023-0050. In addition, the Federal rulemaking website allows members of the public to receive alerts when changes or additions occur in a docket folder. To subscribe: 1) navigate to the docket folder (NRC-2023-0050); 2) click the “Subscribe” link; and 3) enter an email address and click on the “Subscribe” link.

Dated: April 17, 2023.

For the Nuclear Regulatory Commission.

Daniel H. Dorman,  
Executive Director for Operations.

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